Physical Restraints

Occasionally, EMS providers are faced with patients who are violent and/or agitated. These patients can pose a danger to themselves and EMS providers. The etiology of the behavior may be organic or functional, and efforts should be made to correct reversible causes. Medical/trauma causes include, but are not limited to, hypoxia, CVA, head trauma, hypoglycemia, and ETOH/drug intoxication. This guideline is meant to outline the conditions for the application of restraints to patients who need transport to the hospital, but in the opinion of the AIC, have the potential for violence toward the crew. By using the following procedure in conjunction with the chemical restraint guideline, it will not be necessary to contact medical command for the use of physical or chemical restraints unless you are unclear whether the patient fits the requirements. You are required to mention during the prehospital radio report that you have restrained the patient. All restraints, chemical or physical, will require the use of a second provider in the back of the ambulance with the AIC.

****DRIVER MUST REMEMBER TO RECORD TRANSPORT/ARRIVAL MILEAGE OVER THE RADIO****

1. Important questions to consider before determining restraints should be used:
    A. Does the patient have an ALOC?
    B. Is the patient capable of refusing care? If so, do they understand the risks?
    C. Is the patient in danger of hurting self or others?
    D. Is there or could there be an underlying medical emergency that could lead to death if not restrained?
    E. Is there a medical intervention that needs to be performed to avoid worsening the patient's condition?
    F. Can the patient be treated successfully without the use of restraints?

2. If the decision is made that restraints should be used, safeguard yourself and the crew; do not hesitate to retreat to a safe location if necessary.

3. **Do not attempt to subdue a violent patient until Law enforcement and adequate assistance is on the scene.**

4. Interventions that should be considered with good faith prior to placing restraints:
    A. Treat possible reversible causes (hypoglycemia).
    B. Relaxation techniques – Try to calm the patient with a friendly tone of voice while keeping your distance but openly offering your help; do not verbally escalate the situation or block exits.
    C. Be honest and concise
    D. Wrap/cover IV site with kling
    E. Treat all life threatening injuries
    F. Be alert to the warning signs of impending violence: tense posture, loud or threatening speech by the patient, increasing muscular activity, aggressive body language, or the provider's own impression of the situation.

5. Check blood glucose level and administer chemical restraint medication, per the guideline at the end of this document.

6. Application of Restraints
    A. Negotiate with the patient – **Inform** them that you intend to restrain them and **why** (do not use technique as a threat).
    B. The minimum number of providers necessary for this procedure is 3, although 5 is highly recommended. During transport, one provider will maintain airway at all times.

C. Do not get yourself in a situation that could potentially endanger you.
D. All patients will be transported in the supine position on the cot and/or a backboard.
E. Wrist and ankle restraints should be applied to the backboard or cot. Only minimal **SOFT** restraints will be used to the degree necessary to safeguard the patient and crew from injury. Commercial Posey® soft wrist and ankle restraints should be used; in their absence, soft/strong material such as towels, sheets, cravats, and/or kling-wrap can be used as acceptable alternatives. If subject is in custody of, or has been placed in hard restraints by law enforcement, an officer must accompany the patient in the ambulance to the hospital with appropriate restraining devices. Same applies if an ECO has been issued.
F. Apply chest belt first, under the patient's arms, not over them. It should also be anchored above the patient's shoulders and drawn as high as possible on the patient's chest.

G. Apply thigh belt second. It should be anchored and engaged above the knee.

H. Apply 4-point restraints last (each arm and leg as necessary). Use 2-point if that will successfully restrain the patient.
I. Consider restraining the dominant arm above the head.

J. Tie the base of the restraints to a “T” post so that the restraint cannot slide on the cot rails.

K. Those patients who respond well to restraints may only need medication and 4-point restraints. However, those who are particularly violent or active may need to be fully immobilized with CID, neck collar, and spider straps.
L. Pad under head and be sure to apply blankets to keep the patient warm, if necessary.
M. Once they have been placed, keep the restraints on the patient until transfer of care.
N. Apply oxygen by NRB to maintain oxygen saturation and to prevent spitting.
O. Neurovascular assessments must be performed every 10 min throughout the duration of transport to assure adequate circulation of restrained extremity.

7. Documentation – If physical restraints are applied to a patient for any reason, adequate documentation on

the PPCR must include the following:

A. Explanation of the concern about patient-outcome and why restraints were necessary. Would it have been possible to treat patient without restraints?
B. As many verbatim comments made by the patient as possible, especially those made prior to the application of restraints.
C. Evidence or examples of violence shown towards the crew, as well as the medical need for transport. Did you feel threatened and why?
D. Whether or not Law Enforcement was present during transport (name and badge # documented in either case).
E. That the treatment and necessity of the restraints were used in the patient's best interests.
F. Whether or not restraints were used on standing order or by medical command (name of MD).
G. Time of restraint placement
H. Type of restraints used
I. Assessment of skin deformity/injuries at the restraint site prior to placement.
J. Neurovascular assessment of the restrained extremities to assure adequate circulation should be documented every **10 min.**
K. Patient's response to restraints
L. Position of restraints on patient's body
M. Assessment of skin deformity/injuries at the restraint site upon transfer of care.
N. Mileage from scene to destination must be logged over radio and on the PPCR.
O. Continuous ABC evaluations.

7. Warnings
   A. DO NOT transport the patient in a prone position.
   B. Never leave a patient unattended who has been restrained chemically or physically.
   C. Remember the neurovascular assessments.

DO NOT "hog tie" or sandwich a patient between backboards or mattress and the cot.

D. If you find that Law Enforcement has placed patient in one of the above positions, insist on keeping patient restrained per our protocol, document thoroughly and call Medical Command if you need any assistance.
E. Once chemical restraints have been used, do not assume you are safe without also applying physical restraints to the patient.

Chemical Restraints

Haloperidol, also known as Haldol®, is the classic prototype of the high-potency antipsychotic medications. Although it has strong chemical restraint and sedative properties, especially if given in conjunction with diphenhydramine and benzodiazepines, respiratory drive usually stays unaffected. This guideline is to be used in conjunction with the Physical Restraint Guideline.

Actions: The mechanism of action and subsequent physiologic effects are based on the blockade of several receptors throughout the mesolimbic areas of the CNS. Dopamine (D_2) receptor blockade is assumed to cause the desired antipsychotic effects; histamine (H_1) blockade causes sedation; parasympathetic (muscarinic) blockade causes the common anticholinergic signs of dry mouth, blurred vision, and tachycardia; alpha-1 adrenergic receptor blockade can cause orthostatic hypotension and reflex tachycardia.
Onset of action: 5 min
Peak: 20 min
Duration: 2-3 hrs

Indications: Violent behavior or acute psychosis, demonstrating danger to self or others, and transport to the ED is medically necessary.

Contraindications:

1. Hypersensitivity to haloperidol
2. CNS depression
3. Pregnancy
4. Parkinson's Disease

Precautions:

1. Neuroleptic malignant syndrome (NMS) – A fatal and uncommon adverse reaction includes acute rigidity, temperature increase, fluctuations in BP and HR, and dysrhythmias. **Consult a Medical command physician if symptoms result.**
2. Orthostatic hypotension
3. Sedation – Although respiratory depression is very rare with the dosages of the haloperidol/diphenhydramine/benzodiazepine combination specific to this protocol, remain vigilant for changes in the patient's airway status.
4. Seizures – Haloperidol tends to lower the seizure threshold among patients with a known seizure disorder.
5. Long QT syndrome – There is a small risk for dysrhythmias such as torsade de pointes decompensating into VT/VF. Always monitor ECG after haloperidol administration.

Administration:

1. Haloperidol 5 mg IV and diphenhydramine 12.5 mg IV **OR** 10 mg IM and 25 mg IM, respectively.
2. If more medication is needed and the patient is greater than 65 years old, midazolam 1 mg IV **OR** 2 mg IM
3. If more medication is needed and the patient is less than 65 years old, lorazepam 1 mg IV **OR** 2 mg IM.

Side Effects: A relatively common SE of blocking D_2 receptors is the possible development of extrapyramidal symptoms (EPS), also known as acute dystonic reaction, which may manifest as eye deviation to one side and/or severe muscle spasms in the neck, tongue, face, trunk or back. Diphenhydramine will be given along with haloperidol to decrease the possible development of EPS.